CURRICULUM VITAE
Bruce E. Sagan

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Department of Mathematics
Wells Hall
619 Red Cedar Road
Michigan State University
East Lansing, MI 48824-1027
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2059 Georgetown Blvd.
Ann Arbor, MI 48105-1532
tel: (734) 769-7642

EDUCATION:

1974-1979	MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA., Ph.D. in Mathematics, January 1979.
	Thesis: "Partially Ordered Sets with Hooklengths - an Algorithmic Approach."
	Advisor: Professor Richard Stanley.
1971-1974	CALIFORNIA STATE UNIVERSITY, Hayward, CA. B.S. in Mathematics, Summa Cum Laude, June 1974.

ACADEMIC CAREER:

1994–present	MICHIGAN STATE UNIVERSITY, East Lansing, MI. Full Professor
2018–2019	MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA. Visiting Professor.
2007–2010	NATIONAL SCIENCE FOUNDATION, Arlington, VA. Program Officer
2005–2006	DIMACS, Rutgers, NJ Visiting Professor.
2005 (Spring)	MITTAG-LEFFLER INSTITUTE, Djursholm, Sweden. Visiting Professor.
2001 (Winter)	NEWTON INSTITUTE, Cambridge, England. Visiting Professor.

1997 (Winter)	MATHEMATICAL RESEARCH INSTITUTE, Berkeley, CA. General Member.
1989–1994	MICHIGAN STATE UNIVERSITY, East Lansing, MI. Associate Professor
1993–1994	ROYAL INSTITUTE OF TECHNOLOGY, Stockholm, Sweden. Visiting Professor.
1991 (Spring)	UNIVERSITY OF CALIFORNIA, San Diego, CA. Visiting Professor.
1986–1989	MICHIGAN STATE UNIVERSITY, East Lansing, MI. Assistant Professor
1988 (Spring)	INSTITUTE FOR MATH. AND ITS APPLICATIONS, Minneapolis, MN., Visiting Senior Member.
1986 (Fall)	UNIVERSITE DU QUEBEC, Montréal PQ Visiting Professor.
1985–1986	UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA. Visiting Lecturer.
1984–1985	MIDDLEBURY COLLEGE, Middlebury, VT. Assistant Professor of Mathematics
1983–1984	UNIVERSITY COLLEGE OF WALES, Aberystwyth, Wales. NATO postdoctoral fellow.
1980–1983	UNIVERSITY OF MICHIGAN, Ann Arbor, MI. Assistant Professor of Mathematics.
1979–1980	UNIVERSITE LOUIS PASTEUR, Strasbourg, France. NSF postdoctoral fellow.

GRANTS

1979–1980	NSF Postdoctoral Fellowship, U.S. – France Exchange of Scientists Program
1980–1981	NSF Summer Research Grant
1983–1984	NATO Postdoctoral Fellowship in Science
1987–1988	All University Research Initiation Grant
1988–1989	NSF Summer Research Grant
1990	SCREMS Computer Hardware Grant NSF/ICM-90 Travel Grant National Science Council of Taiwan Research Grant
1991	Special Foreign Travel Fund Award
1991–1992	All University Research Initiation Grant
1993	Special Foreign Travel Fund Award National Science Council of Taiwan Research Grant
1994	Bar Ilan University Visitor Grant

1995	Special Foreign Travel Fund Award
	Research In Pairs Grant, Oberwolfach
1996	Australian National University Visitor Grant
1997	MSRI General Membership Grant
	Special Foreign Travel Fund Award
1999	University of Florida Visitor Grant
2000	University of Waterloo Visitor Grant
2001	Special Foreign Travel Fund Award
	Newton Institute Subsistence Award
2003	Clay Institute Partnership (conference in honor of Richard Stanley)
	NSF Grant (conference in honor of Richard Stanley)
2005	University of Florida Visitor Grant
	Mittag-Leffler Institute Subsistence Award
	Special Foreign Travel Fund Award
2007	Visiting Faculty Program Grant (MSU)
2011	co-PI, "Summer Undergraduate Research Institute in Experimental Mathematics," H98230-11-1-0222, National Security Agency, $176,107, 2011–2012.
2011	co-PI, "REU Site in Applied and Discrete Mathematics," DMS-1062817, National Science Foundation, $275,406, 2011–2014 .
2013	co-PI, "Summer Undergraduate Research Institute in Experimental Mathematics," H98230-11-1-0222, National Security Agency, $94,045 in 2013, additional $76,868 awarded in August 2013
2019	co-PI, "Validating and Extending Methods for Extracting the Backbone of Bipartite Projections," SES-1851625, National Science Foundation, $120,000, Summer 2019.
2020	co-PI "Extracting the backbone of complex human networks," Center for Business and Social Analytics (MSU), $24,926, 2020–2021.
2020	co-PI, "Extracting the Backbone of Weighted Networks," SES-2016320, National Science Foundation, $148,879, Summer 2020.

PHD STUDENTS

1988–1992	Kathy Dempsey
1990–1993	Margaret Readdy
1991–1993	José Giraldo
1992–1995	Ping Zhang
1994–1998	David Gebhard
1994–1999	Larry Liu
1999–2003	Szu-En Cheng
2005–2007	Adam Goyt
2008–2011	Bob Willenbring
2011-2015	Joshua Hallam
2013–2015	Kenneth Barrese
2011–2016	Samantha Dahlberg

2011–2017	Emad Zahedi
2014–2017	Emily Olson
2016–2019	Duff Baker-Jarvis
2017–2021	Rachel Domagalski
2020–present	Quinn Minnich
2020–present	Jinting Liang
2021–present	Jamie Kimble

ADDRESSES

1979   International Seminar on Algorithm and Combinatorics, Sophia-Antipolis, France
Conference on Combinatorics and Representations of the Symmetric Group,
     Oberwolfach, Germany

1981   Michigan Graph Theory Conference, Ann Arbor, MI
Lotharingien Seminar, Bayreuth, Germany
Swedish Mathematical Society Annual Meeting, Stockholm, Sweden

1982   Conference on Combinatorics, Oberwolfach, Germany
Conference on Combinatorics, Giessen, Germany
AMS Meeting special session, Algebraic Combinatorics, Cincinnati, OH

1983   University of Manchester, Manchester, England

1984   AMS Meeting special session, Enumerative Combinatorics, Minneapolis, MN
University of Warwick, Coventry, England
University of Wales Pure Math Colloquium, Gregynog, Wales
Lotharingien Seminar, Burg Feuerstein, West Germany
University College of Wales, Bangor, Wales
University of Birmingham, Birmingham, England
University of College of Wales, Cardiff, Wales
University of Wales History of Math Course, Gregynog, Wales
Conference on Combinatorics, Invariant Theory, and
     Representations of the Symmetric Group, Oberwolfach, Germany

1985   Symposium on Combinatorics and the Symmetric Group,
     Durham, England
Canadian Math. Soc. Meeting, special session on Combinatorics,
     Québec City, Québec
AMS Meeting special session, Enumerative Combinatorics, Worcester, MA

AMS Meeting special session, Algebraic Combinatorics, Anaheim, CA
M.I.T. Special Year in Combinatorics, Cambridge, MA

1986   University of Pennsylvania, Philadelphia, PA
Bryn Mawr College, Bryn Mawr, PA

1987   AMS Meeting special session, Combinatorics and Representation Theory,
      San Antonio, TX
University of Waterloo, Waterloo, ONT
Discrete Math. Conference, Wright State University, Dayton, OH

1988   Université du Québec, Montréal, P.Q.
DePaul University, Chicago, IL
M.I.T., Cambridge, MA
Central Michigan University, Mt. Pleasant, MI
XXXI Semester on Classical Algebraic Structures, Stefan Banach
      International Center, Warsaw, Poland
Program in Applied Combinatorics, IMA, Minneapolis, MN

1989   Université de Bordeaux, Bordeaux, France
Capitol City Conference on Combinatorics and Theoretical
      Computer Science, Washington, D.C.
Conference on Combinatorics, Oberwolfach, Germany

1990   National Chengchi University, Taipei, Taiwan
ICM, Kyoto, Japan
Conference on Commutative Algebra and Combinatorics, Nagoya, Japan
University of Illinois at Chicago, Chicago, IL

1991   University of Pennsylvania, Philadelphia, PA
Arizona State University, Tempe, AZ
3rd Conference on Formal Power Series and Algebraic Combinatorics,
      Bordeaux, France
University of California at San Diego, La Jolla, CA
California Institute of Technology, Pasadena, CA
North Texas State University, Denton, TX

1992   University of Miami, Coral Gables, FL
Hyperplane Workshop, Madison, WI
AMS Meeting special session, Combinatorics and Graph Theory, Dayton, OH
Mittag-Leffler Institute, Djursholm, Sweden
4th Conference on Formal Power Series and Algebraic Combinatorics,
      Montréal, Québec

7th International Conference on Graph Theory, Combinatorics,
    Algorithms and Applications, Kalamazoo, MI
AMS Meeting special session, Combinatorics and Geometry, Springfield, MO
University of Calgary, Calgary, Alberta

1993   Freie Universität, Berlin, Germany
        National Chiao Tung University, Hsinchu, Taiwan
        Academia Sinica, Taipei, Taiwan
        Dalian University of Technology, Dalian, China
        South China Normal University, Guangzhou, China
        3rd China - U.S.A. International Conference in Graph Theory,
            Combinatorics, Algorithms and Applications, Beijing, China
        Jerusalem Combinatorics '93, Jerusalem, Israel
        AMS Meeting, special session on Geometric Methods in Combinatorics,
            Washington, D.C.
        AMS Meeting, special session on Algebraic Combinatorics, Knoxville, TN
        Cornell University, Ithaca, NY

1994   MIGHTY XXIII, Kalamazoo, MI
        Conference on Hyperplane Arrangements, Marseilles, France
        Universität Wien, Vienna, Austria
        Universita di Milano, Milan, Italy
        Universität Erlangen, Erlangen, Germany
        Royal Institute of Technology, Stockholm, Sweden

1995   George Washington University, Washington, D.C.
        Howard University, Washington, D.C.
        Séminaire Lotharingien de Combinatoire, Hesselberg, Germany
        FPSAC 1995, Paris, France
        Conference on combinatorics and the symmetric group, Oberwolfach, Germany
        Hebrew University, Jerusalem, Israel
        Technion University, Haifa, Israel
        Bar Ilan University, Tel Aviv, Israel
        Ben Gurion University, Be'er Sheva, Israel

1996   MRSI, Berkeley, California
        MIGHTY XXIV, Alma, MI
        University of Melbourne, Australia
        University of Queensland, Brisbane, Australia
        University of Central Queensland, Rockhampton, Australia
        Australia National University, Canberra, Australia
        University of Sydney, Sydney, Australia
        Rotafest, M.I.T., Cambridge

University of Texas, El Paso, TX

1997   Ohio State University, Columbus, OH
FPSAC 1997, Vienna, Austria
Santa Clara University, Santa Clara, CA
California State University, Hayward, CA
AMS special session on Algebraic Combinatorics, San Diego, CA

1998   Winnipeg Combinatorial Math. Conference, Winnipeg, Canada
Japanese Math. Soc. Workshop on Hyperplane Arrangements, Tokyo, Japan
AMS special session on Algebraic Combin., Louisville, KY
State University of New York, Albany, NY

1999   AMS special session on Algebraic and Geometric Combin., Providence, RI
FPSAC 1999, Barcelona, Spain
MIGHTY XXXI, Oakland, MI
AMS special session on Algebraic and Geometric Combin., Gainesville, FL

2000   Western Michigan University, Kalamazoo, MI
9th Int'l Conference on Graphs, Combinatorics, Algorithms, and Appl., Kalamazoo, MI
University of Waterloo, Waterloo, ONT

2001   Queen Mary College, London, England
University of Manchester Institute of Science and Technology, Manchester, England
University College of Wales, Aberystwyth, Wales
Oxford University, Oxford, England
Newton Institute, Cambridge, England
University of Klagenfurt, Klagenfurt, Austria
Conference on Tutte Polynomials and related topics, Barcelona, Spain
Bay Area Discrete Math Day, Hayward, CA

2002   Conference on Multilinear Algebra and Matroid Theory, Lisbon, Portugal

2003   AMS special session on Lattice Theory, Baltimore, MD
Conference on Permutation Patterns, Dunedin, New Zealand
AMS special session on Algebraic and Topological Combinatorics, New York, NY
Seminar: Université du Québec, Montréal, PQ
Joint SIAM-CAIMS minisymposium on Graph Theory, Montréal, PQ
FPSAC 2003, Vadstena, Sweden

2004   Colloquium: SUNY, Binghamton, NY
Seminar: Rutgers, Piscataway, NJ
Colloquium: Dalhousie University, Halifax, Nova Scotia

Conference for Richard Stanley's 60th birthday, MIT, Cambridge, MA
AMS special session on Graph Polynomials, Pittsburgh, PA

2005   Colloquium: Temple University, Philadelphia, PA
        Seminar: University of Pennsylvania, Philadelphia, PA
        Seminar: Dartmouth College, Hanover, NH
        Seminar: Rutgers University, Piscataway, NJ
        Seminar: Ohio State University, Columbus, OH
        3rd Conference on Permutation Patterns, Gainesville, FL
        Colloquium: University of Florida, Gainesville FL
        Colloquium: SUNY Binghamton, Binghamton, NY
        Seminar: Lafayette College, Easton, PA
        Mittag-Leffler Institute, Djursholm, Sweden
        Seminar: Saint Michael's College, Colchester, VT
        Words 2005, Université du Québec, Montréal, PQ
        Conference on Combinatorial Geometries and Applications, CIRM,
            Marseilles, France
        AMS special session on Graph Invariants, Bard College,
            Annandale-on-Hudson, NY
        AMS special session on Algebraic and Geometric Combinatorics, Bard College,
            Annandale-on-Hudson, NY
        Seminar: University of Linköping, Linköping, Sweden
        Seminar: Royal Institute of Technology, Stockholm, Sweden

2006   Seminar: Rutgers University, Piscataway, NJ
        Colloquium: Dartmouth College, Hanover, NH
        Colloquium: George Washington University, Washington, DC
        Discrete Mathematics Days in the Northeast, SUNY, Albany, NY
        Colloquium: SUNY Binghamton, Binghamton, NY
        4th Conference on Permutation Patterns, Reykjavík, Iceland
        Keynote address: FPSAC 2006, UCSD, La Jolla, CA

2007   Keynote address: 18th British Postgraduate Combinatorial Conference,
            St Andrews, Scotland
        5th Conference on Permutation Patterns, St Andrews, Scotland
        Lecture series: Summer School on Algebra and Combinatorics, Lisbon, Portugal
        Seminar: George Washington University, Washington, D.C.
        Colloquim: Howard University, Washington, D.C.
        CMS special session on Combinatorics and Physics, London, Canada
        Conference for Andreas Blass' 60th Birthday, Toronto, Canada

2008   Conference for Anders Björner's 60th Birthday, Stockholm, Sweden
        Colloquium: DePaul University, Chicago, IL

Seminar: San Francisco State University, San Francisco, CA
Seminar series: George Washington University, Washington, D.C.
Conference on Combinatorics and Groups, Gainesville, FL
Colloquium: George Mason University, Fairfax, VA
Colloquium: Tulane University, New Orleans, LA
Seminar: Dartmouth, Hanover, NH
Memorial Conference in Honor of Tom Brylawski, UNC, Chapel Hill, NC
Seminar: North Carolina State University, Raleigh, NC
Colloquium: Howard University, Washington, D.C.
Seminar: University of Delaware, Newark, DE

2009   Minicourse on Capstone Courses, Joint Mathematics Meetings, Washington, D.C.
        AMS special session on Applications of Algebraic and Geometric Combinatorics,
            North Carolina State University, Raleigh, NC
        Seminar: University of Illinois, Urbana-Champagne, IL
        Ulam Centennial Conference, University of Florida, FL
        AMS special session on Algebraic Combinatorics, Pennsylvania State
            University, College Park, PA
        7th Conference on Permutation Patterns, Florence, Italy
        FPSAC 2009, Hagenberg, Austria
        Colloquium: Howard University, Washington, D.C.
        AMS-KMS special session on Algebraic Combinatorics, Seoul, Korea
        Algebraic Combinatorics Workshop, KAIST, Daejeon, Korea

2010   Seminar: Rutgers University, Piscataway, NJ
        Seminar: Virginia Commonwealth University, Richmond, VA
        Colloquium: University of Virginia, Charlottesville, VA
        AMS special session on Enumerative Combinatorics, San Francisco, CA
        Workshop on Combinatorics, Enumeration, and Invariant Theory, George Mason
            University, Fairfax, VA
        Mathfest special session on Visualizing Combinatorics through Tilings, Pittsburgh, PA
        AMS special session on Analytic Combinatorics, Syracuse, NY
        SIAM mini-symposium on Enumerative Combinatorics, Austin, TX
        8th French Combinatorial Conference, Orsay, France
        Seminar: University of Pennsylvania, Philadelphia, PA
        Colloquium: Bucknell University, Lewisburg, PA

2011   Colloquium: University of Connecticut, Storrs, CT
        AMS special session on Algebraic Combinatorics, Iowa City, IA
        AMS special session on Algebraic and Geometric Combinatorics, Statesboro, GA
        Waterloo Workshop on Computer Algebra, Waterloo, ON, Canada
        Keynote address: British Combinatorial Conference, Exeter, England
        Seminar: Univeristy of Michigan, Ann Arbor, MI

Keynote address: International Conference on Discrete Mathematics
    and Its Applications, Taipei, Taiwan

2012   AMS special session on Enumerative and Geometric Combinatorics, Lawrence, KS
    Seminar: University of Washington, Seattle, WA
    Seminar: Simon Fraser University, Burnaby, BC, Canada
    Colloquium: Chalmers University of Technology, Göteborg, Sweden
    SIAM mini-symposium on Algebraic Combinatorics, Halifax, NS, Canada
    SIAM mini-symposium on Graph Polynomials, Halifax, NS, Canada
    AMS special session on Rook Theory and Applications, New Orleans, LA

2013   Keynote addresses: Southeastern International Conference
    on Combinatorics, Graph Theory, and Computing, Boca Raton, FL
    Colloquium: West Virginia University, Morgantown, WV
    Seminar: University of Michigan, Ann Arbor, MI
    Seminar: University of Kentucky, Lexington, KY
    Kappa Mu Epsilon Talk: Central Michigan University, Mt. Pleasant, MI
    Seminar: LACIM, Montréal, PQ, Canada
    CanaDAM mini-symposium on Enumerative Combinatorics, St John's, NL, Canada
    AMS special session on Multiple Analogues of Combinatorial Special Numbers
    and Associated Identities, Philadelphia, PA
    Keynote addresses: Atlanta Lecture Series in Combinatorics
    and Graph Theory, Atlanta, GA
    Colloquium: Linköpings Universitet, Linköping, Sweden

2014   Colloquium: University of Michigan, Ann Arbor, MI
    Seminar: University of Washington, Seattle, WA
    Lecture Series: Lake Michigan Workshop on Combinatorics and Graph Theory,
    Kalamazoo, MI
    Keynote address: Conference on Bijective and Algebraic Combinatorics, Gainesville, FL
    Keynote address: CombinaTexas, College Station, TX
    Colloquium: Michigan Technological University, Houghton, MI
    Seminar: Center for Combinatorics, Nankai, China
    Lecture series: 4th Encuentro Colombiano de Combinatoria, Bogotá, Colombia
    Stanley@70 Conference, Cambridge, MA
    Patterns in Permutations, Johnson City, TN
    Colloquium: York University, Toronto, ONT, Canada
    AMS Special Session on Algebraic Combinatorics, Eau Claire, WI
    Keynote address: Clemson Mini-Conference, Clemson, SC
    Seminar: Central Michigan University, Mt. Pleasant MI

2015   AMS special session on Enumerative Combinatorics, San Antonio, TX
    Seminar: Rutgers University, Piscataway, NJ

Invited address: Midwest Combinatorics Conference, Minneapolis, MN
Keynote address: Patterns in Permutations, London, England
AMS special session on Enumerative Algebraic and Geometric Combinatorics, Chicago, IL
AMS special session on Combinatorial and Geometric Representation Theory, Chicago, IL
AMS special session on Enumerative Combinatorics, Chicago, IL

2016   Combinatorial Algebra meets Algebraic Combinatorics, London, Ont
Invited address: Pattern avoidance and genome sorting, Saarbrücken, Germany
AMS special session on Combinatorics of Symmetric Functions, Athens, GA
Midwest Graph Theory Conference LVII, Dayton, OH
Colloquium: UCLA, Los Angeles, CA
Invited address: XXI Coloquio Latinoamericano de Algebra, Buenos Aires, Argentina
AMS special session on Enumerative Combinatorics, Minneapolis, MN

2017   AMS special session on Applications of Partially Ordered Sets, Atlanta, GA
Mathematical Adventures and Diversions, Lafayette College, Easton, PA
Colloquium: Lafayette College, Easton, PA
AMS special session on Algebraic and Enumerative Combinatorics, Bloomington, IN
Colloquium: Dartmouth College, Hanover, NH
Invited address: Mini-symposium on Patterns in permutaitons and words,
   British Combinatorial Conference, Glasgow, Scotland
Keynote address: AMS sectional meeting, Buffalo, NY
Seminar: University of Washington, Seattle, WA

2018   Seminar: University of Michigan, Ann Arbor, MI
Seminar: Brandeis University, Waltham, MA
Invited address: Krattenthalerfest, Strobl, Austria
Featured address: Discrete Mathematics Day of the Northeast, Kingston, RI
AMS special session on Combinatorics in Algebra and Algebraic Geometry,
   Ann Arbor, MI
Seminar: Williams College, Williamstown, MA
Colloquium: University of Florida, Gainesville, FL
Seminar: University of Florida, Gainesville, FL

2019   Invited address, Helen Barton Lecture Series, Greensboro, NC
Colloquium: Wake Forest University, NC
Colloquium: Worcester Polytechnic Institute, Worchester, MA
Seminar, MIT, Cambridge, MA
Seminar, University of California, San Diego, CA
Seminar, Universtiy of Colorado, Boulder, CO
Seminar, University of Massachusetts, Amherst, MA
Invited address, Harvard University, Cambridge, MA
Invited address, Electronic Journal of Combinatroics Conference, Vancouver, BC

AMS special session on Patterns in Permutations, Gainesville, FL

2020   Featured address, NY Regional Graduate Mathematics Conference, Syracuse, NY, virtual
        Address, Permutation Patterns 2020, virtual
        Seminar, University of Minnesota, Minneapolis, MN, virtual
        Poster, Dynamical Algebraic Combinatorics Conference, virtual
        ANT-COG Seminar, University of North Carolina, Greensboro, NC, virtual
        Cluster Algebra Seminar, Michigan State University, East Lansing, MI, virtual
        Online Cluster Algebra Seminar, virtual

2021   Seminar, University of British Columbia, Vancouver, BC, virtual
        Seminar, Illinois Institute of Technology, Chicago, IL, virtual
        Poster, Commutative Algebra meets Algebraic Combinatorics, virtual
        Seminar, Arizona State University, Tempe, AZ, virtual
        Invited address, Conference in honor of Yeong-Nan Yeh, Taipei, Taiwan, virtual
        Address: Southeastern International Conference
           on Combinatorics, Graph Theory, and Computing, virtual
        Featured address, Discrete Math Days in the Northeast, virtual
        Address, CanaDAM, virtual
        Seminar, Dartmouth College, Hannover, NH, virtual
        Colloquium, Universidad de Sevilla, Spain, virtual
        AMS Special Session on Geometric and Topological Combinatorics, virtual
        Invited address, BIRS Workshop on Dynamical Algebraic Combinatorics, virtual

2022   Seminar, Université de Paris Nord, Paris, France, virtual
        AMS Special Session on Permutation Enumeration, JMM, virtual
        Seminar, Dartmouth College, Hannover, NH, virtual
        Tamura/Lilly Lecture, Oberlin, OH
        Address, Permutation Patters 2022, Valparaiso, IN
        Seminar, Algebraic and Combinatorial Perspectives in the Mathematical Sciences, virtual
        Special talk, AMS Special Session on Enumerative Combinatorics, Chattanooga, TN
        Seminar, Örebro University, Sweden
        Invited address, Enumerative Combinatorics conference, Oberwolfach, Germany

2023   Seminar, University of Michigan, Ann Arbor, MI
        Math-for-Everyone lecture, University of Notre Dame, Notre Dame, IL
        Seminar, University of Notre Dame, Notre Dame, IL
        Alexanderson Lecture, Santa Clara University, CA
        Seminar, University of California, Berkeley, CA
        Seminar, San Francisco State University, San Francisco, CA
        Invited Address: International Conference on Enumerative Combinatorics
           and Applications, virtual

Featured Address: Triangle Lectures in Combinatorics, Rahleigh, NC
Invited Address, Algebraic Combinatorics Virtual Expedition, virtual
Seminar, Illinois Institute of Technology, Chicago, IL
Colloquium, DePaul University, Chicago, IL
Colloquium, University of North Carolina, Greensboro, NC, virtual
Seminar, York University, York, ON
Seminar, University of South Carolina, virtual
Seminar, Dartmouth College, Hannover, NH, virtual
Colloquium, University of Southern California, Los Angeles, CA

2024   Colloquium, Illinois Institute of Technology, Chicago, IL
Featured Address, Bruce Sagan Birthday Conference, Gainesville, FL
AMS Special Session on Posets in algebraic and geometric combinatorics, Milwaukee, WI
AMS Special Session on Permutation Patterns, Washington, DC
Invited address, Group Theory and its Neighboring Disciplines, Denver, CO
Workshop, Algebraic Combinatorics Virtual Expedition, virtual
AMS Special Session on Symmetric Functions and Applications, Albany, NY
AMS Special Session on Permutation Patterns, Albany, NY

AWARDS, HONORS, SERVICE

1985	Good Teaching Award, University of Pennsylvania
1990	J.S. Frame Teaching Award, Michigan State University
2004	J.S. Frame Teaching Award, Michigan State University
2004-present	Editor-in-chief, Electronic Journal of Combinatorics

RESEARCH INTERESTS

Algebraic, enumerative, and topological combinatorics as well as graph theory: symmetric functions, groups and representations, tableaux algorithms, chromatic and independence polynomials of graphs, the mobius function and homology of partially ordered sets, pattern avoidance and containment in permutations and other combinatorial structures.

PUBLICATION LIST

Bruce E. Sagan

PAPERS

1. An analog of Schensted's algorithm for shifted Young tableaux, *J. Combin. Theory Ser. A* **27** (1979), 10–18.

1a. Also included in "Young Tableaux in Combinatorics, Invariant Theory, and Algebra, an Anthology of Recent Work," Joseph P. S. Kung ed., Academic Press, New York (1982), 29–37.

2. A cyclic derivative in non-commutative algebra (with G.-C. Rota and P. Stein), *J. Algebra* **64** (1980), 54–75.

3. On selecting a random shifted Young tableau, *J. Algorithms* **1** (1980), 213–234.

4. Congruences derived from group action (with G.-C. Rota), *European J. Combin.* **1** (1980), 67–76.

5. From sets to functions: 3 elementary examples (with S.-N. Joni and G.-C. Rota), *Discrete Math.* **37** (1981), 193–202.

6. Enumeration of partitions with hooklengths, *European J. Combin.* **3** (1982), 85–94.

7. Bijective proofs of certain vector partition identities, *Pacific J. Math.* **102** (1982), 171–178.

8. A note on Abel polynomials and rooted labeled forests, *Discrete Math.* **44** (1983), 293–298.

9. Computer-aided analysis of monotonic sequence games (with F. Harary and D. West), *Atti Accad. Perolitana Pericolanti Cl. Sci. Fis. Mat. Natur.* **61** (1983), 67–78.

10. Signed posets (with F. Harary), *Bull. Calcutta Math. Soc.* (1983), 3–10.

11. Congruences via Abelian groups, *J. Number Theory* **20** (1985), 210–237.

12. Bijective proofs of two broken circuit theorems (with A. Blass), *J. Graph Theory* **10** (1986), 15–21.

13. Shellability of exponential structures, *Order* **3** (1986), 47–54.

14. Shifted tableaux, Schur Q-functions, and a conjecture of R. P. Stanley, *J. Combin. Theory Ser. A* **45** (1987), 62–103.

15. A note on independent sets in trees, *SIAM J. on Discrete Math.* **1** (1988), 105–108.

16. Inductive and injective proofs of log concavity results, *Discrete Math.* **68** (1988), 281–292.

17. Probabilistic algorithms for trees (with Y.-N. Yeh), *Fibonacci Quart.* **27** (1989), 201–208.

17a. Also included as a *Rapport de Recherche*, Université du Québec, Montréal (1987).

18. The ubiquitous Young tableau, in "Invariant Theory and Tableaux," Dennis Stanton ed., IMA Volumes in Math. and its Applications, Vol. 19, Springer-Verlag, New York (1990), 262–298.

19. Robinson-Schensted algorithms for skew tableaux (with R. P. Stanley), *J. Combin. Theory Ser. A* **55** (1990), 161–193.

20. The twisted N-cube with application to multiprocessing (with Abdol-Hossein Esfahanian and Lionel M. Ni), *IEEE Trans. on Computers* **40** (1991), 88–93.

20a. Also appeared as: On enhancing hypercube multiprocessors, "1988 International Conference on Parallel Processing," 86–89.

21. A maj statistic for set partitions, *European J. Combin.* **12** (1991), 69–79.

22. Eigenvectors and eigenvalues of some special graphs IV. Multi-level circulants (with S.-L. Lee, Y.-L. Luo and Y.-N. Yeh), *Internat. J. of Quantum Chem.* **41** (1992), 105–116.

23. Log concave sequences of symmetric functions and analogs of the Jacobi-Trudi determinants, *Trans. Amer. Math. Soc.* **329** (1992), 795–811.

24. Inductive proofs of q-log concavity, *Discrete Math.* **99** (1992), 298–306.

25. Congruence properties of q-analogs, *Adv. in Math.* **95** (1992), 127–143.

26. The *Combinatorica* software package, *College Math. J.* **23** (1992), 335–339.

27. Lattice paths, reflections, & dimension-changing bijections (with R. K. Guy and C. Krattenthaler), *Ars Combin.* **34** (1992), 3–15.

28. Basic derivations for subarrangements of Coxeter arrangements (with T. Józefiak), *J. Algebraic Combin.* **2** (1993), 291–320.

29. Combinatorial proofs of hook generating function for skew plane partitions, *Theoret. Comput. Sci.* **117** (1993) 273–287.

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